

Preliminary Astrometric Results from Kepler

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ABSTRACT

Although not designed as an astrometric instrument, Kepler is now expected to produce astrometric results of a quality appropriate to support many of the astrophysical investigations enabled by its photometric results. On the basis of data collected during the first few months of operations the astrometric precision for a single 30 minute measure appears to be at least as good as 4 milliarcseconds (0.001 pixel) and possibly significantly better. Solutions for stellar parallax and proper motions must await more observations. Fortunately, the analysis of the astrometric residuals from a local solution in the vicinity of a star is already an important tool in the process of confirming the hypothesis of a planetary transit.

Subject headings: astrometry — stars: fundamental parameters